

Response Under 37 C.F.R. §1.116
Expedited Procedure
Examining Group 2176

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Linda Benhase, et al. **Examiner:** William L. Bashore
Serial No: 10/725,278 **Art Unit:** 2176
Filed: December 1, 2003 **Docket:** TUC920030094US1 (16800)
For: TABLE COLUMN SPANNING **Dated:** September 15, 2006

Confirmation No.: 2547

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT UNDER 37 C.F.R. §1.116

Sir:

In response to the Office Action dated July 13, 2006, please amend the subject patent application as follows.

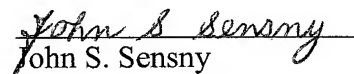
Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 9 of this paper.

CERTIFICATE OF ELECTRONIC FILING

I hereby certify that this correspondence is being deposited with the United States Patent & Trademark Office via Electronic Filing through the United States Patent and Trademark Office e-business website, on September 15, 2006.

Dated: September 15, 2006


John S. Sensny

LISTING OF THE CLAIMS:

1. (Currently Amended) A method for grouping columns of data into different levels for subsequent multiple level operations, comprising the steps:

providing sub-columns within a single table column, said table columns and each of the sub-columns having an associated header; and

using multiple dummy tables and displaying ~~them separately on~~ said multiple dummy tables together at the same time and side-by-side at different locations on ~~[[a]]~~ the same display screen to form a single composite table on said display screen, one of the dummy tables including one or more of the associated headers; and

wherein said one of the dummy tables includes the header associated with the table column, a second of the dummy tables includes the headers associated with the sub-columns, and said one and said second of the dummy tables are separately moveable and positionable on the display screen.

Claim 2 (Cancelled).

3. (Currently Amended) A method according to Claim 2 1, wherein the columns of data includes a multitude of data cells, and the multitude of dummy tables includes a third dummy table including said multitude of data cells.

4. (Original) A method according to Claim 3, wherein the displaying step includes the step of contiguously displaying the first, second and third dummy tables.

5. (Original) A method according to Claim 3, wherein:

the one of the dummy tables includes only the header associated with the table column: and

the second of the dummy tables includes only the headers associated with the sub-columns.

6. (Original) A method according to Claim 5, wherein the third dummy table includes only said multitude of data cells.

7. (Currently Amended) A system for displaying a table including a plurality of headers and a multitude of data cells, each of the headers identifying contents of a set of the data cells, the system comprising:

means for creating one or more header dummy tables including one or more of said headers, and for creating a data dummy table including one or more of said data cells; and

means for displaying the header and data dummy tables together at the same time and side-by-side at separate locations on [[a]] the same display device screen to form a single composite table on said display screen; and

wherein the header and data dummy tables are separately movable and positionable on the display device.

8. (Original) A system according to Claim 7, wherein:

the plurality of headers includes a first level of headers and a second level of sub-headers;

at least one header of the first level of headers has at least one sub-header of the second level of headers; and

the means for creating header dummy tables includes means for creating a first header dummy table including headers of the first level of headers and for creating a second header dummy table including sub-headers of the second level of headers.

9. (Original) A system according to Claim 8, wherein the means for creating header dummy tables includes means for creating a respective one first header dummy table for each of the headers of the first level that has at least one sub-header.

10. (Original) A system according to Claim 8, wherein:

the first header dummy table includes only headers of the first level of headers; and

the second header dummy table includes only sub-headers of the second level of headers.

11. (Original) A system according to Claim 10, wherein the data dummy table includes only data cells.

12. (Original) A system according to Claim 8, wherein the means for creating header dummy tables includes means for creating, for each of the headers in the first level of headers that has one or more sub-headers in the second level of headers, a respective one second header dummy table to hold all of the sub-headers of said each of the headers of the first level of headers.

13. (Currently Amended) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for displaying a table including a plurality of headers and a multitude of data cells, each of the headers identifying contents of a set of the data cells, said method steps comprising:

creating one or more header dummy tables including one or more of said headers;

creating a data dummy table including one or more of said data cells; and

displaying the header and data dummy tables together at the same time and side-by-side at separate locations on [[a]] the same display device screen to form a single composite table on said display screen; and

wherein the header and data dummy tables are separately movable and positionable on the display device.

14. (Original) A program storage device according to Claim 13, wherein:

the plurality of headers includes a first level of headers and a second level of sub-headers;

at least one header of the first level of headers has at least one sub-header of the second level of headers; and

the step of creating header dummy tables includes the steps of creating a first header dummy table including headers of the first level of headers and creating a second header dummy table including sub-headers of the second level of headers.

15. (Original) A program storage device according to Claim 14, wherein the step of creating header dummy tables includes creating a respective one first header dummy table for each of the headers of the first level that has at least one sub-header.

16. (Original) A program storage device according to Claim 14, wherein:

the first header dummy table includes only headers of the first level of headers; and

the second header dummy table includes only sub-headers of the second level of headers.

17. (Original) A program storage device according to Claim 16, wherein the data dummy table includes only data cells.

18. (Original) A program storage device according to Claim 14, wherein the step of creating header dummy tables includes the step of creating, for each of the headers in the first level of headers that has one or more sub-headers in the second level of headers, a respective one second header dummy table to hold all of the sub-headers of said each of the headers of the first level of headers.

19. (Currently Amended) A method of manipulating the display of a given data table having a plurality of columns, each column having an associated column heading and one or more associated data cells, and at least one of the columns having a plurality of sub-columns, each of said sub-columns having an associated sub-column heading, the method comprising the steps of:

establishing one or more dummy header tables, said dummy header table having all of said headers and none of the data cells of the given table;

establishing a dummy data table, said dummy data table having all of the data cells of the given table and one of the headers;

displaying said one or more dummy header tables and said dummy data tables together at the same time and side-by-side on [[a]] the same display screen to form a single composite table on said display screen, wherein said one or more dummy header tables and said dummy data tables are separately moveable and positionable on said display screen; and

mapping said data cells of the dummy data table to the headers of the one or more dummy header tables to form a modified table.

20. (Previously Presented) A method according to Claim 19, wherein the mapping step includes the step of mapping the data cells of the dummy data tables to the headers of the one or more dummy header tables so that, in the modified table, each data cell is in a column having the header associated with said each data cell in the given table.

REMARKS

In the Office Action, the Examiner rejected Claims 1 and 3-20, which are all of the pending claims, under 35 U.S.C. 103 as being unpatentable over U.S. Patent 6,544,294 (Greenfield, et al.). It is noted that the previous rejection of Claims 1 and 3-12 under 35 U.S.C. 101, as being directed to non-statutory subject matter, was withdrawn

Applicants herein ask that independent Claims 1, 7, 13 and 19 be amended to better define the subject matters of these claims.

For the reasons set forth below, Claims 1 and 3-20 patentably distinguish over the prior art and are allowable. The Examiner is thus requested to enter this Amendment, to reconsider and to withdraw the rejection of Claims 1 and 3-20 under 35 U.S.C. 103, and to allow these Claims.

Generally, Claims 1 and 3-20 patentably distinguish over the prior art because the prior art does not show or suggest displaying a multitude of dummy tables, as described in independent Claims 1, 7, 13 and 19, together at the same time on the same screen to form a single composite table.

In order to best understand this difference between the claims and the prior art, and the significance of this difference, it may be helpful to review briefly the instant invention and the prior art.

Generally, this invention relates to the display of data tables having plural or multi-level headers. One common type of table, found in a variety of hardware/software computer systems, is referred to as a categorization table. This type of table organizes data under successive and expandable levels of headings. With many conventional database management programs, it is difficult or time consuming to manage the data in data tables having multiple levels of headers.

One reason for this is because the top, or first level, headers may have different numbers of columns beneath them.

The present invention addresses this issue. Generally, this is done, by using what is referred to as dummy tables to manage the positioning of the headers. With this invention, different levels of headers are put into different dummy tables. This allows each level of headers to be moved around independent of the other level of headers.

For instance, with one embodiment of the invention, table columns are grouped into different levels for subsequent multiple level operations. Sub-columns are provided within a single table column, with that table column and each of the sub-columns having an associated header. Multiple dummy tables are established and displayed together, side-by-side and at the same time, on the same display screen to form a single table, with one of the dummy tables including one or more of the associated headers. Preferably, that one of the dummy tables includes the header associated with the table column, and a second of the dummy tables includes the headers associated with the sub-columns. These two dummy tables are separately moveable and positionable on the display screen or device.

More specifically, a first dummy table may have only the headers of the original table and no data cells, and this dummy table is placed at a first location on a display screen. A second dummy table is created with the data cells of the original table, and this second dummy table does not have any headers. The two dummy tables are then positioned on the display screen to form the appearance of a single table with the headers above the appropriate data cells.

The prior art does not disclose or suggest displaying dummy tables of the type described above and in the manner discussed above.

In particular, Greenfield, et al. discloses a procedure for creating graphical representations of events such as screenplays, speeches or multimedia works. This graphical representation visually displays a presentation metric of events and the temporal relationships between events. Events may be subsets of other events, and the graphical representations of the events may be moved around a display screen to show visually how the timing relationships between the events may be changed. Figure 10 of Greenfield, et al, which was specifically cited by the Examiner, shows a user interface screen having a time line display area and identifying a series of time related events, specifically acts and scenes of a play.

There are a number of significant difference between Greenfield, et al. and the present invention. One important difference is that Greenfield, et al. is directed primarily to developing a visual display to help organize a series of events, while the present invention is directed to re-presenting a table in a manner that can easily accommodate changes to that table.

In the Office Action, the Examiner noted that Greenfield shows three table in Figures 8, 9 and 10, and the Examiner commented that “said displays can be fairly interpreted as displayed separately at different locations...” These Figures of Greenfield, though, do not show the tables displayed together at the same time on the same display screen.

Applicants ask that independent Claims 1, 7, 13 and 18 be amended to describe this feature this feature of the invention more expressly. In particular, Claim 1 describes the feature that multiple dummy tables are displayed together at the same time and side-by-side on the same display screen to form a single composite table on that display screen.

In addition, each of Claims 7, 13 and 19 describes a header dummy table holding headers of the original table, and a data dummy table holding the data cells of the original table, and these claims, as presented herewith, describe the feature that these two dummy tables are

displayed together at the same time and side-by-side on the same display screen to form a single composite table on that display screen.

The other references of record have been reviewed, and these other references, whether considered individually or in combination, also do not teach or suggest forming and using the dummy tables as described in Claims 1, 7, 13 and 19

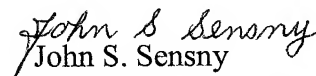
Because of the above-discussed differences between Claims 1, 7, 13 and 19 and the prior art, and because of the advantages associated with these differences, Claims 1, 7, 13 and 19 patentably distinguish over the prior art and are allowable. Claims 3-6 are dependent from Claim 1 and are allowable therewith; and Claims 8-12 are dependent from, and are allowable with, Claim 7. Similarly, Claims 14-18 are dependent from Claim 13 and are allowable therewith; and Claim 20 is dependent from, and is allowable with, Claim 19.

The changes requested herein to the claims only elaborate on features already described in the claims. In particular, the claims presently describe the dummy tables and the display screen, and the claims are being amended herein to indicate more specifically how those dummy tables are shown on the display screen. Further, the claims are being amended in response to the Examiner's remarks in the last Office Action, that the manner in which the claims previously described displaying the dummy tables can be considered as disclosed by the separate Figures 8, 9 and 10 of Greenfield. It is thus believed that entry of the present Amendment is appropriate and such entry is respectfully requested.

The Examiner is, accordingly, asked to enter this Amendment, to reconsider and to withdraw the rejection of Claims 1 and 3-20 under 35 U.S.C. 103 and to allow these claims.

If the Examiner believes that a telephone conference with Applicants Attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,


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